

MISCELLANEOUS NEW APOCYNACEAE AND ASCLEPIADACEAE

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Morleya Woodson, gen. nov. Apocynacearum (Plumerioideae-Plumerieae-Alstoniinae).—Calyx 5-partitus eglanduligerus, lobis aequalibus imbricatis in anthesim caducis. Corolla salverformis, tubo ampulliformi basi staminigero, limbi lobis 5 aestivatione sinistrorso. Antherae 5 subsessiles omnino fertiles compresse ovatae. Ovarii carpella 2 valde subinferiora super receptaculo apocarpa, ovulis in quoque loculo ca. 16, 4-seriatim positus, stigmate sessili doliiformi apiculis 2 minutis erectis minute puberulo-papillatis, nectario nullo. Fructus ignotus.—Arbores. Folia alternata, petiolo supra medio glanduligero. Inflorescentia terminalis thyrsiformis pluriflora, bracteis minimis. Species typicum succedit:

MORLEYA leipocalyx Woodson, spec. nov.—Arbor ca. 12 m. alta, ramulis teretibus glabris cortice brunneis. Folia petiolata oblonga vel obovato-oblonga apice valde acuminata basi abrupte decurrentia cum petiolo ad medio glanduligero 10–12 cm. longa 2–3 cm. lata firmiter membranacea glabra. Inflorescentia glabra ramosa foliis brevior, pedicellis ca. 0.5 cm. longis, bracteis minimis caducis. Calycis laciniae ovato-trigonales ca. 0.1 cm. longae minute ciliolatae mox caducae. Corollae albae extus glabrae tubus ampulliformis ca. 1.3 cm. longus basi ca. 0.1 cm. diam. ibique staminiger lobi oblongo-dolabriformes ca. 1.4 cm. longi 0.6 cm. lati patuli. Antherae ca. 0.15 cm. longae. Ovarii carpella glabra vix 0.1 cm. alta; stigmate ca. 0.1 cm. alto. Nomen e *λειπο* et *κάλυξ* compositum. —COSTA RICA: Guanacaste: near ridge crest, alt. ca. 200 m.; north of La Cruz on proposed route of Inter-American Highway, 14 miles south of Nicaraguan border, Aug. 13, 1946, *Thomas Morley 770* (Herb. Chicago Nat. Hist. Mus., TYPE).

Morleya suggests relationship to *Plumeria* through its half-inferior ovary, but is distinguished amongst all known Alstoniinae through its peculiar caducous calyx lobes and glandular petioles. I am indebted to Dr. P. C. Standley for calling my attention to this remarkable plant.

MANDEVILLA longipes Woodson, spec. nov.—Frutex volubilis ca. 5–7 m. altus ramulis tenuibus ferrugine hirtellis internodiis sat elongatis. Folia opposita petiolata elliptica apice subcaudato-acuminata basi anguste sagittato-cordata 6–9 cm. longa 2–4 cm. lata utrinque puberulo-hirtella supra nervo medio sparse glanduligero petiolo 0.5–1.0 cm. longo. Inflorescentiae axillares alternatae racemiformes pluriflorae pedunculo 8–10 cm. longo sparse minuteque hirtello bracteis lanceolatis 0.2–0.3 cm. longis. Flores ut dicuntur albi medio fulvi; pedicellis elongatis tenuibus 2.0–2.5 cm. longis minute hirtellis; calycis laciniis ovatis acutis ca. 0.2 cm. longis; corollae salverformis vel subsalverformis tubo ca. 3 cm. longo basi ca. 0.1 cm. diam. ostio ca. 0.2 cm. diam. indistincte gibboso paullo supra medio staminigero lobis dolabriformibus ca. 1.5 cm. longis patulis valde contortis. Folliculi valde moniliformes tenues 15–20 cm. longi laeves.—COLOMBIA: BOYACA:

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low thin forest, alt. 4500 ft., La Chapon, July 27, 1932, A. E. Lawrance 361 (Herb. Missouri Bot. Gard., TYPE). At first mistaken for *M. subsagittata*, to which it must be closely related, but differing in its conspicuously elongate, lax (not secund) pedicels. In addition, the flower color of the latter species, as I know it in Panama, is a soft yellow, but with the "brownish yellow center" of which Mr. Lawrance speaks (or possibly more nearly reddish-orange).

MANDEVILLA turgida Woodson, spec. nov.—Suffrutex ut videtur suberecta habitu ignota; ramulis crassiusculis cortice irregulariter subalatis rubro-brunneis minute puberulis internodiis ca. 1.0–1.5 cm. longis; foliis oppositis breviter petiolatis ellipticis vel oblongo-ellipticis apice basique acutis 3–4 cm. longis 1.0–1.7 cm. latis rigide coriaceis subnervis illustribus nervo medio supra ad longitudinem sparse glanduligero subtus minute puberulis caeterumque glabris petiolo ca. 0.3 cm. longo; inflorescentiae racemiformes subterminales pluriflores pedunculo ca. 1.5 cm. longo; pedicellis ca. 0.3 cm. longis minute puberulis; bracteis scariaceis minimis; calycis laciniis ovato-lanceolatis anguste acutis ca. 0.15 cm. longis papillatis, intus basi multiglanduligeris; corollae infundibuliformis gilvae extus glabrae tubo proprio ca. 1.5 cm. longo basi ca. 0.15 cm. diam. faucibus anguste campanulatis ca. 1.7 cm. longis ostio ca. 1 cm. diam. lobis oblique obovatis breviter apiculatis ca. 1 cm. longis patulis; antheris oblongo-sagittatis dorso glabris ca. 0.4 cm. longis basi truncate 2-lobatis; carpellis oblongoideis ca. 0.15 cm. longis glabris; nectariis 5 plus minusve concretescentibus ovaria ca. dimidio aequantibus; stigmatum umbraculiformi breviter apiculato ca. 0.2 cm. longo; folliculis ignotis. —VENEZUELA: BOLIVAR: Cerro Guaiquinima, Alto Río Paragua, alt. 1740 m., Oct., 1943, F. Cardona 959 (U. S. Nat. Herb., TYPE).

A most unusual member of the shrubby section of subgen. *Exothostemon*; allied to the *M. Vanheurckii* complex, of which the old Roraima Shield so abounds, but differing from all in the extremely small, elliptic leaves.

MALOUETIA Quadricasarum Woodson, spec. nov.—Arbor ca. 15 m. alta trunco basi ca. 20 cm. diam. Ramuli dichotomi glabri cortice brunneo. Folia opposita lamina late elliptica apice longiuscule subcaudato-acuminata basi late obtusa 10–15 cm. longa 5.0–6.5 cm. lata subcoriacea glabra. Cymae umbelliformes subsessiles pluriflorae. Flores albo-galbini; pedicello ca. 1 cm. longo glabro; calycis laciniis subfoliaceis haud imbricatis apicem versus patulis oblongo-lanceolatis apice obtusis vel rotundatis 0.3–0.35 cm. longis margine sparse ciliatis caeterumque glabris intus basi ad margines 1-squamelligeris; corollae salverformis tubo anguste conico ca. 1.2 cm. longo basi ca. 0.12 cm. diam. ostio ca. 0.05 cm. diam. faucibus staminigeris ibique callosis 5-dentatis extus omnino glabro, lobis patulis inaequilateraliter elliptico-lanceolatis ca. 1 cm. longis extus glabris intus dense pilosis; antheris exsertis ca. 0.25 cm. longis dorso dense pilosis; ovario ca. 0.15 cm. alto dense piloso, nectario annulari; stigmatum fusiformi ca. 0.1 cm. longo. —COLOMBIA: El Valle: costa del Pacifico, Río Cajambre, Silva, alt. 5–80 m., May 5–15, 1944, J. Cuatrecasas 17522 (Herb. Missouri Bot. Gard., TYPE).

In my revision of *Malouetia* (Ann. Missouri Bot. Gard. 22:238. 1935), this species keys to the neighborhood of *M. Schomburgkii* because of its subfoliaceous calyx lobes, although its general appearance is more suggestive of the widespread *A. tamaquarina*.

PRESTONIA Haughtii Woodson, spec. nov.—Suffrutex volubilis alte scandens; ramulis crassiusculis glabris bene lenticellatis. Folia opposita breviter petiolata lamina obovato-ovali apice mucronulata basi obtusa vel late acuta 20–30 cm. longa 8–11 cm. lata firmiter membranacea vel subcoriacea glabra supra illustri subtus pallidiori petiolo ca. 1 cm. longo. Inflorescentia terminalis simplex racemiformis ca. 15-flora pedunculo deflexo ca. 8–10 cm. longo glabro bracteis minimis. Flores apicem versus subaggregati; pedicello ca. 1.5 cm. longo inconspicue pilosulo; calycis campanulati coriacei ut videtur plus minusve purpurissati ca. 1.5 cm. longi laciniis ovato-trigonalibus acutis ca. 1 cm. longis indistincte papillatis intus squamellam deltoideam minute erosam instructis; corollae salverformis pallide luteae tubo cylindrico ca. 1.5 cm. longo basi ca. 2 mm. diam. extus glabro, lobis late dolabriformibus ca. 1 cm. longis patentibus, faucium annulo ca. 2 mm. alto obscure 5-lobato albo, appendicibus epistaminalibus vix inclusis ca. 1 mm. longis; antheris vix inclusis ca. 5 mm. longis valde sagittatis glabris; ovariis ca. 1 mm. longis glabris, stigmatibus non viso, nectariis 5 carnosius basi con crescentibus ca. 2.5 mm. longis. Folliculi ignoti.—COLOMBIA: ANTIOQUIA: edge of forest, alt. under 50 m., Nicocli, June 25, 1946, O. Haught 4911 (Herb. Missouri Bot. Gard., TYPE).

Closely allied to the following, but differing in the more elongate leaves, somewhat shorter corolla-tube, and nectaries surpassing the ovary.

PRESTONIA macrophylla Woodson, spec. nov.—Suffrutex volubilis alte scandens; ramulis crassiusculis glabris valde longitudinaliter striatis et inconspicue lenticellatis. Folia opposita breviuscule petiolata; lamina late obovata apice emarginata basi obtusa vel latissime acuta coriacea glabra supra illustri subtus pallidiori; petiolo ca. 1 cm. longo. Inflorescentia terminalis simplex racemiformis ca. 20-flora; pedunculo 8–10 cm. longo; bracteis minimis. Flores haud specialiter aggregati spiraliter dispositi; pedicello ca. 1 cm. longo sparse appresse pilosulo; calycis basi campanulati coriacei ut videtur plus minusve purpurissati ca. 1.5 cm. longi laciniis oblongo-trigonalibus acuminatis ca. 7 mm. longis extus sparse appresseque pilosulis squamellam 3-angularem ca. 3 mm. longam munitis; corollae salverformis pallide luteae tubo ca. 2 cm. longo basi ca. 4 mm. diam. apicem prope paulo attenuato extus glabro, lobis late dolabriformibus ca. 2.5 cm. longis patulis, faucium annulo ca. 3 mm. alto obscure 3-lobato, appendicibus epistaminalibus inclusis linearibus ca. 3 mm. longis; antheris vix inclusis valde sagittatis 5 mm. longis glabris; ovariis ovoideis glabris ca. 1 mm. longis; nectariis 5 carnosius basi coalitis ca. 2 mm. longis. Folliculi ignoti.—COLOMBIA: ANTIOQUIA: Río Turbo at mouth of Quebrada de los Indios, alt. under 50 m., Turbo, July 15, 1946, O. Haught 4377 (Herb. Missouri Bot. Gard., TYPE).

At first sight, this species may be mistaken for *P. obovata*, of Panama, from which it differs in the fleshy texture of the floral nectary, typical of the South American representation of the § *Annulares*. Actually, the closest relative of *P. macrophylla* appears to be the preceding species and *P. didyma*, from which it differs in the obovate leaves, minute bracts, and larger flowers.

FORSTERONIA propinqua Woodson, spec. nov.—Suffrutex volubilis gracilis; ramulis gracilibus bene lenticellatis glabris juventate ferrugineo-pilosulis. Folia opposita breviter petiolata lamina elliptico-oblonga anguste acuminata basi obscurissime cordata 5–8 cm. longa 2–3 cm. lata delicate membranacea opaca supra glabra subtus in axillis nervi medii ferrugineo-barbata nervo medio supra basi pauciglandulifero, petiolo 3–4 mm. longo. Inflorescentia terminalis spicate thyrsiformis multiflora; pedunculo ca. 4–5 cm. longo; pedicellis subnullis. Calycis lacinae ovatae acutae ca. 2 mm. longae extus minute pilosulae esquamelligerae. Corollae rotato-campanulatae extus glabrae gilvae tubus ca. 1 mm. longus faucibus ca. equilatis; lobis ovato-oblongis ca. 2.5 mm. longis patulis; antheris valde exsertis oblongo-panduliformibus basi 2-lobatis ca. 1.5 mm. longis glabris; ovario syncarpo ca. 0.5 mm. longo pilosulo; stigmatibus umbraculiformi ca. 1.5 mm. longo longe 2-apiculato; nectariis 5 discretis ovarium semiaequantibus. Folliculi ignoti.—**COLOMBIA: ANTIOQUIA:** forest on Río Guadualito, alt. about 50 m., Turbo, May 1, 1946, O. Haught 4818 (Herb. Missouri Bot. Gard., TYPE).

This species is remarkable in its syncarpous ovary, which allies it with *F. spicata* of the Caribbean basin of Central and South America and the Antilles, a very common species. From that species, *F. propinqua* may be separated readily by the smaller, oblong-elliptic foliage and strictly terminal inflorescences which are less densely pubescent and with somewhat smaller flowers.

FORSTERONIA mediocris Woodson, spec. nov.—Frutex volubilis, ramulis graciliusculis conspicue lenticellatis glabris internodiis sat elongatis. Folia opposita petiolata elliptico-oblonga apice breviuscule subcaudato-acuminata basi rotundata 10–12 cm. longa 4.5–5.5 cm. lata membranacea utrinque glabra, petiolis ca. 0.7 cm. longis. Inflorescentia terminalis anguste thyrsiformis multiflora, pedunculo primario ca. 12 cm. longo minutissime puberulo-papillato ramulis secundariis pluribus basi ca. 2.5 cm. apicem versus gradatim abbreviatis usque 0.1 cm. longis puberulo-papillatis, pedicellis congestis ca. 0.1 cm. longis ut in pedunculis vestitis, bracteis minutis vix bene visis; calycis laciniis late deltoideis acutis 0.1 cm. longis extus minute puberulo-papillatis squamellis nullis; corolla alba campanulata extus intusque minute puberulo-papillata tubo ca. 0.05 mm. longo lobis patulis ovato-ellipticis ca. 0.15 cm. longis; antheris fere plane exsertis 0.08 cm. longis apice pilosulis basi truncatis vix 2-lobatis filamentis liberis; ovario apocarpo ca. 0.05 mm. alto minute pilosulo stigmatibus incluso ca. 0.05 cm. alto, nectariis 5 integris ovarium aequantibus.—**COLOMBIA: CAQUETA:** Florencia, entre matorrales residuales de monte, alt. 400 m., Marzo 29, 1940, J. Cuatrecasas 8800 (U. S. Nat. Herb., TYPE).

This species, the general appearance of which is conveyed by the specific adjective, apparently is closely allied to *F. elachista* Blake and *F. graciloides* Woods., both of which have more diffuse, floriferous inflorescences and roughly obovate leaves; in *F. mediocris*, as well, the flowers are somewhat larger, and the larger anthers more widely exerted.

MATELEA purpureolineata Woodson, spec. nov.—Herbae volubiles fere omnino parte trifariam pubescentes pilis et laxe strigulosis et densius minuteque puberulis tum glandularibus tum eglandularibus; ramulis gracilibus internodiis elongatis. Folia opposita longe petiolata ovato-elliptica acuminata cordata sinu lato lobis inflexis 3.5–5.5 cm. longa 2–3 cm. lata membranacea; petiolis tenuibus 2.0–2.5 cm. longis. Inflorescentia alternato-axillaris corymbiformis pluriflora; pedunculo ca. 1 cm. longo; pedicellis ca. 0.5 cm. longis; bracteis minutis. Calycis lobi 5 oblongo-ovati acuminati ca. 0.4 cm. longi extus trifariam pubescentes, squamellis alternatis solitariis ovoideis compressis. Corolla rotato-campanulata gilva venulis 15 purpureis ornata extus pubescens; tubo ca. 0.45 cm. longo ostio ca. 0.3 cm. diam. intus sparse pilosulo prope mediam staminigero; lobis late oblongo-ellipticis apice rotundatis paululo obliquis patulis ca. 0.7 cm. longis. Gynostegium subsessile tubi corollae prope mediam insertum ca. 0.15 cm. diam.; stigmatate late umbonato; pollinibus horizontalibus latissime reniformibus inaequaliter compressis ca. 0.25 mm. longis, caudiculis subnullis, corpusculo anguste sagittato minuto. Corona annulata lobis 5 latissime 3-angularibus patulis ca. 0.25 mm. longis quibusque processu interiore anguste ligulato ca. 1.25 mm. longo supra gynostegium alte inflexo. Folliculi ignoti.—COLOMBIA: CUNDINAMARCA: hillside east of Apulo, along trail to Anapoima, alt. 460–600 m., thickets, May 4, 1944, *E. P. Killip, A. Dugand & R. Jaramillo 38165* (Herb. Missouri Bot. Gard., TYPE; U. S. Nat. Herb., ISOTYPE).

This species, referable to subgen. *Chthamalia* (cf. Ann. Missouri Bot. Gard. 28:221. 1941), is particularly notable amongst the Mateleas known to me because of the long, narrow, inflexed internal processes of the corona lobes, and the high insertion of the gynostegium, recalling *Gonolobus* subgen. *Pseudolachnostoma*.

A NEW AMSONIA FROM THE TRANS-PECOS

AMSONIA Tharpia Woodson, spec. nov.—Herbae perennes suffrutescentes caudice lignoso inveterato ramis herbaceis pluribus 1–2 dm. altis densiuscule canescenti-pilosis. Folia alternato-approximata congesta subsessilia anguste lanceolata acuminata 2.5–4.0 cm. longa 0.2–0.35 cm. lata rarius basi latiuscule elliptica usque 1.2 cm. lata subcoriacea glabra vel nervo medio inferne sparse pilosulo. Inflorescentia terminalis pauciflora. Flores mediocres ut videntur dilute caerulei pedicellis pilosulis ca. 0.3 cm. longis. Calycis laciniae anguste lanceolatae longe acuminatae ca. 0.35 cm. longae subfoliaceae apicem versus pilosulo-barbatae. Corollae subsalverformis extus omnino glabrae tubus 1.4 cm. longus basi ca. 0.1 cm. diam. faucibus intus pilosulis ca. 0.2 cm. diam. lobis anguste ellipticis ca. 0.6 cm. longis patulis. Stamina prope corollae fauces inserta antheris 0.2 cm. longis.

Ovaria oblongoidea glabra ca. 0.15 cm. alta stylo gracili stigmate globoso papillato ca. 0.1 cm. diam. apice obtuse 2-lobato. Folliculi breviusculi crassiusculi subfusiformes continui glabri ca. 2.5–3.5 cm. longi.—TEXAS: PECOS: frequent on limestone hills 21 miles northeast of Ft. Stockton, on McCamey highway, April 19, 1946, *B. H. Warnock 46183* (Herb. Missouri Bot. Gard., TYPE; Herb. Univ. Texas, ISOTYPE); mesa remnant with guayule, June 21, 1943, *B. C. Tharp 43-508* (Herb. Missouri Bot. Gard.; Herb. Univ. Texas).

This rather unattractive, but wholly distinctive, species was first sent to me in the fruiting condition by Dr. Tharp in 1943. Failing to recognize it, I suggested that a look-out for it be kept upon future visits to Pecos County. This spring Mr. Warnock came upon it apparently in considerable numbers and in good flowering condition. Upon first glance at the flowers, I was disgusted to see how closely they resemble those of such ambiguous species as *A. Palmeri*, *A. hirtella* and *A. Peeblesii* in a superficial way. Then, with my specimens of the last-named species before me, I noticed that in all of them the stamens are inserted slightly above midway within the corolla-tube, whilst in Mr. Warnock's plant the stamens are inserted in the upper quarter of the tube, close beneath the orifice. This difference in position of the stamens results in a slightly different constriction of the corolla orifice, as well as corolla throats of somewhat different shape, the throat of *A. Tharpii* being decidedly shorter and more abruptly constricted than in the neighboring species. Thus, I have no further qualms about the description of the novelty, and am pleased to dedicate it to Dr. Tharp who richly merits such recognition. The woody caudex of the type specimen of *A. Tharpii* is very strikingly thickened and lignified, appearing like a dwarfed Japanese tree ("bonsai") with the many stem-bases of past seasons. It must be many years old.